

# Upper Eastern Shore

## Animal Waste Management Systems: Livestock

**TS Goal:** 176 systems

**Definition:** Systems for the proper handling, storage, and use of waste generated by confined animal facilities. These include ponds, lagoons, and tanks for liquid waste, and sheds or pits for solid waste.

**Applied to:** manure acres (stored manure)

**Nitrogen Efficiency:** 75% reduction

**Phosphorus Efficiency:** 75% reduction

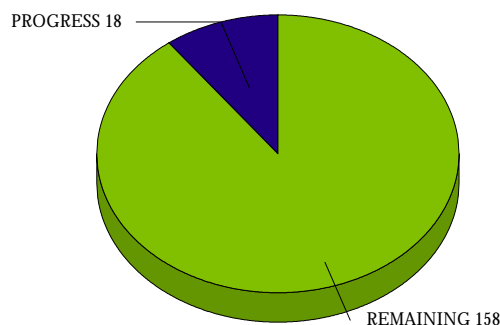
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

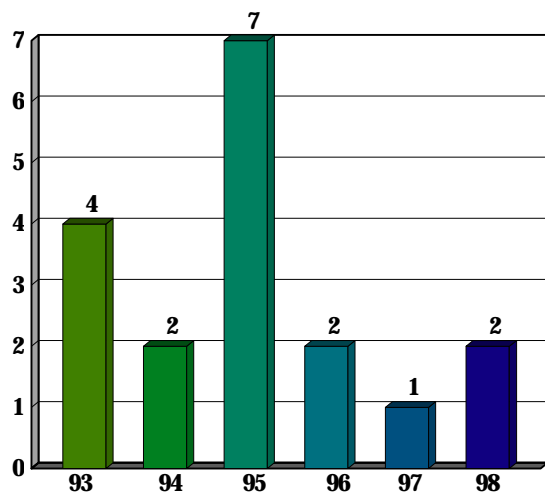
**Nitrogen - High**

**Phosphorus - High**

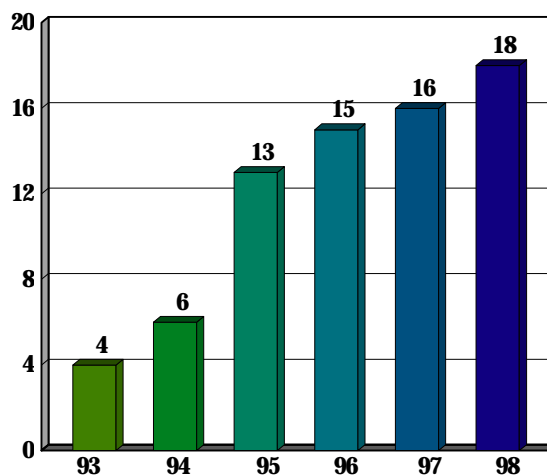


**1998 Progress for Animal Waste Management Systems: Livestock**  
(as a percentage of TS goal, labeled units are systems)

## Implementation Record (systems)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Animal Waste Management Systems: Poultry

**TS Goal:** 42 systems

**Definition:** Systems for the proper handling, storage, and use of waste generated by confined animal facilities. These include ponds, lagoons, and tanks for liquid waste, and sheds or pits for solid waste.

**Applied to:** manure acres (stored manure)

**Nitrogen Efficiency:** 14% reduction

**Phosphorus Efficiency:** 14% reduction

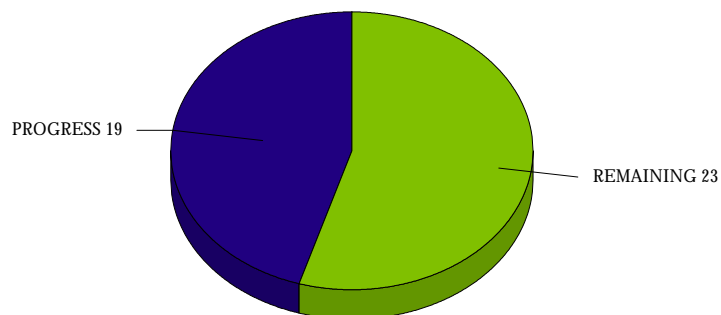
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

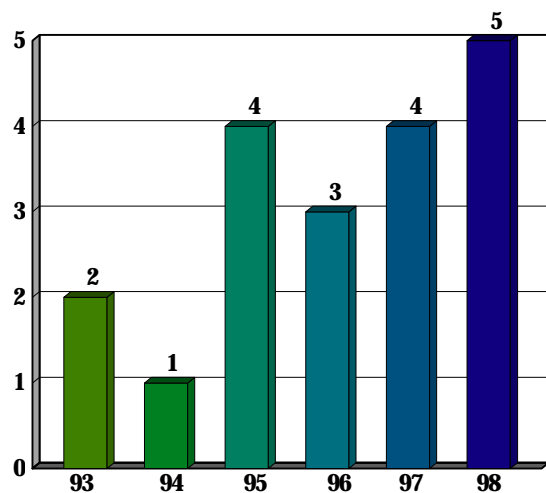
**Nitrogen** - Medium

**Phosphorus** - Medium

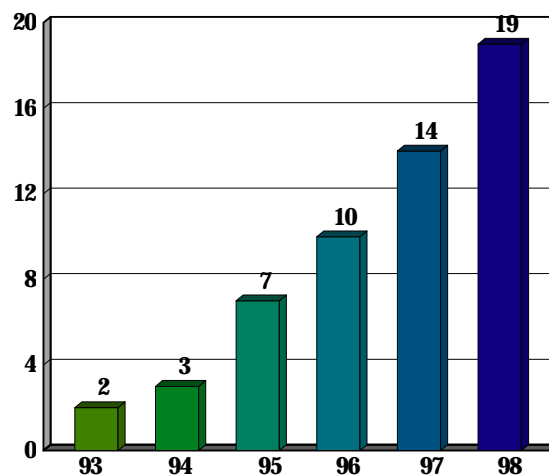


**1998 Progress for Animal Waste Management Systems: Poultry**  
(as a percentage of TS goal, labeled units are systems)

### Implementation Record (systems)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Conservation Tillage

**TS Goal:** 48,078 acres

**Definition:** A process that uses tillage equipment to seed the crop directly into the vegetative cover or crop residue on the surface, with minimal soil disturbance.

**Applied to:** hitill and lotill land

**Nitrogen Efficiency:** land conversion reduction

**Phosphorus Efficiency:** land conversion reduction

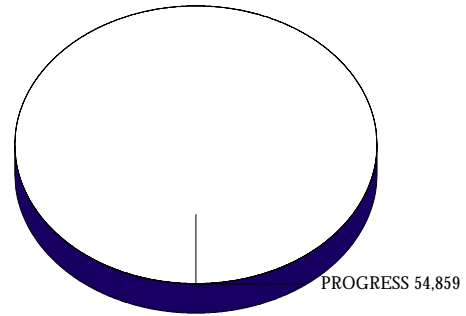
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

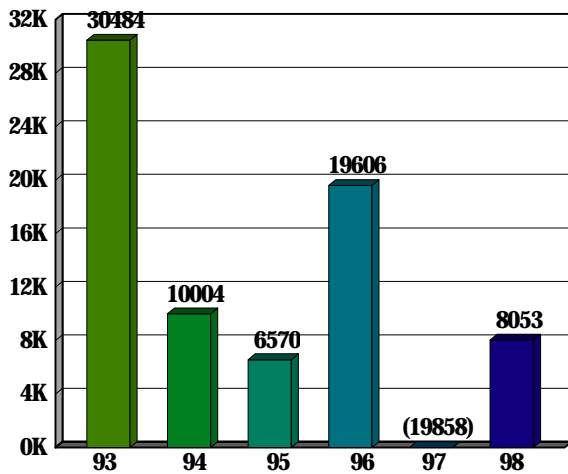
**Nitrogen - High**

**Phosphorus - High**

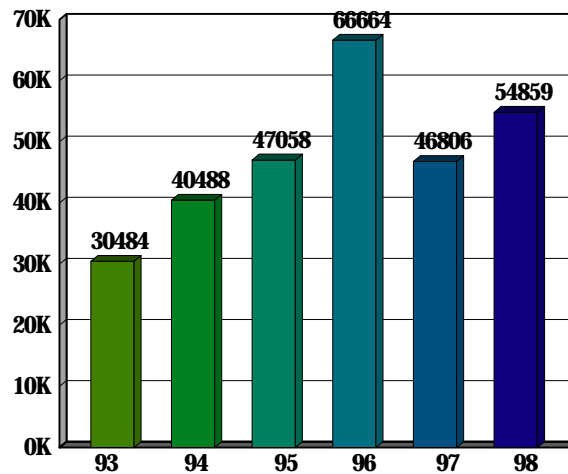


**1998 Progress for Conservation Tillage**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Cover Crops

**TS Goal:** 19,182 acres

**Definition:** Small grains planted in September or early October on land otherwise fallow with no fertilizer applied. This practice reduces nitrate leaching losses during the winter, and also reduces erosion.

**Applied to:** hitill and lolill land

**Nitrogen Efficiency:** 59% reduction

**Phosphorus Efficiency:** 44% reduction

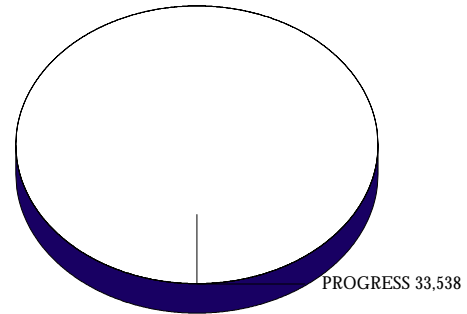
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

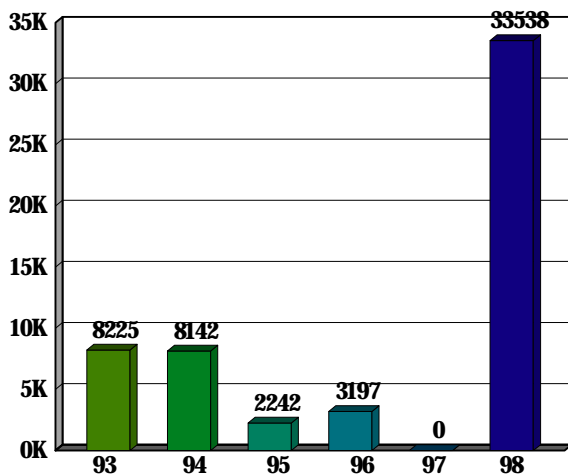
**Nitrogen - High**

**Phosphorus - High**

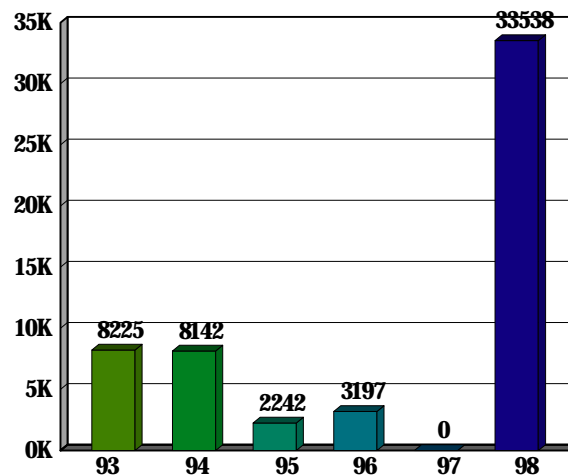


**1998 Progress for Cover Crops**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Nutrient Management Plan Implementation

**TS Goal:** 218,236 acres

**Definition:** A comprehensive plan to manage the amount, placement, timing and application of animal waste, fertilizer, sludge, or other plant nutrients.

**Applied to:** cropland

**Nitrogen Efficiency:** model-derived reduction

**Phosphorus Efficiency:** model-derived reduction

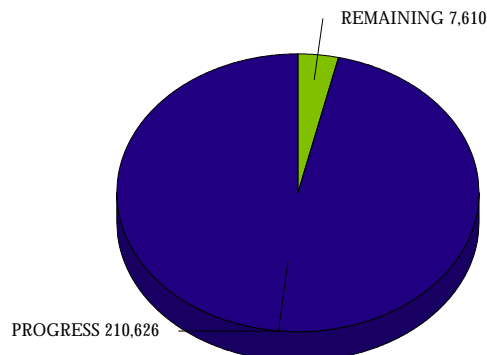
**BMP Rankings:**

**Ability to Reduce Nutrients:** Medium

**Importance in Statewide Strategy:**

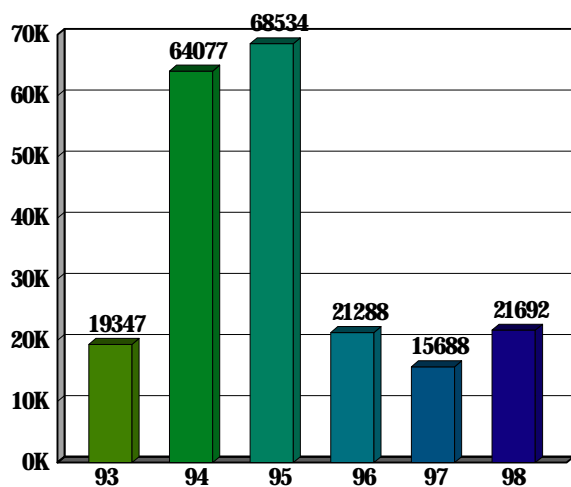
**Nitrogen - High**

**Phosphorus - High**

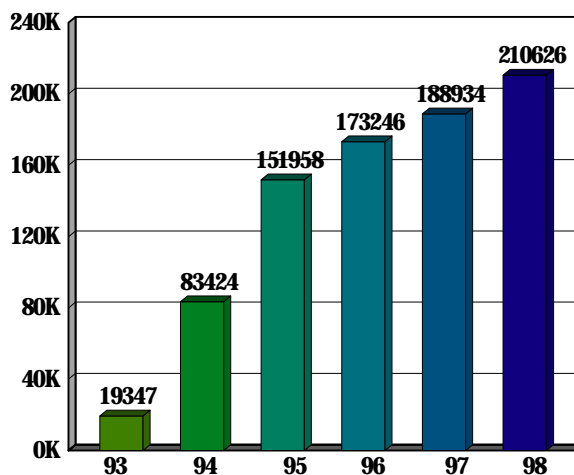


**1998 Progress for Nutrient Management Plan Implementation**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Retirement of Highly Erodible Land

**TS Goal:** 0 acres

**Definition:** An accelerated application of practices used in SCWQPs on lands with a high potential for soil loss.

**Applied to:** cropland and pasture

**Nitrogen Efficiency:** land conversion reduction

**Phosphorus Efficiency:** land conversion reduction

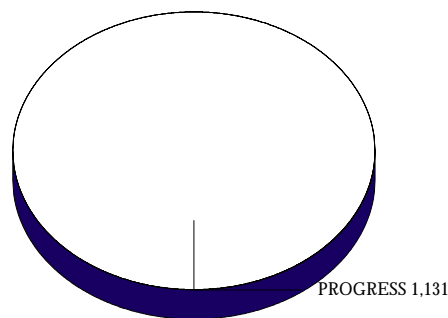
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

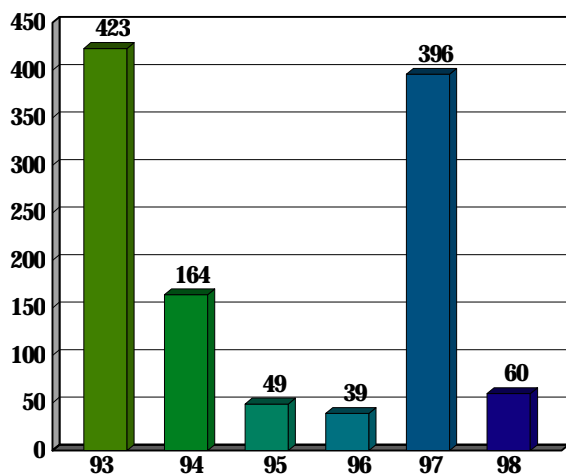
**Nitrogen** - Medium

**Phosphorus** - Medium

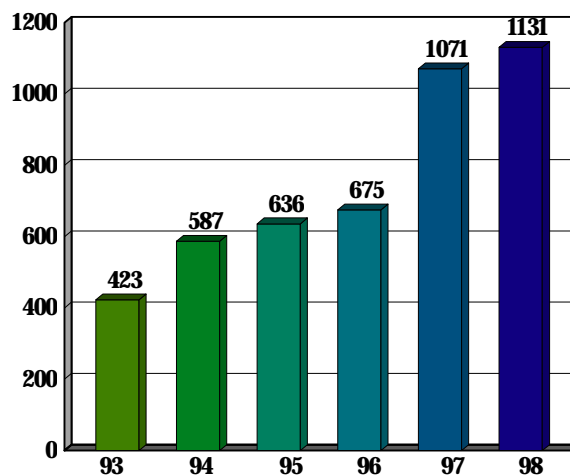


**1998 Progress for Retirement of Highly Erodible Land**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Runoff Control

**TS Goal:** 150 systems

**Definition:** Systems for the proper handling, storage, and use of waste generated by confined animal facilities. These include ponds, lagoons, and tanks for liquid waste, and sheds or pits for solid waste.

**Applied to:** manure

**Nitrogen Efficiency:** 10% reduction

**Phosphorus Efficiency:** 10% reduction

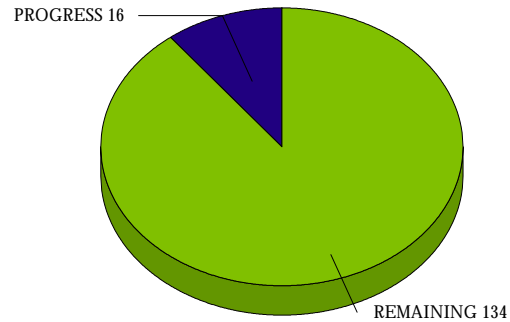
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

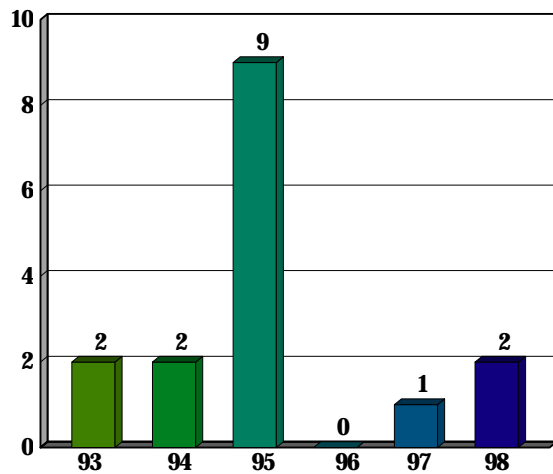
**Nitrogen** - Medium

**Phosphorus** - Medium

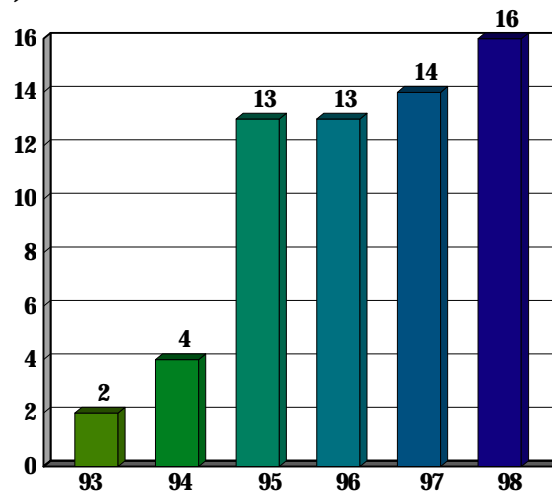


**1998 Progress for Runoff Control**  
(as a percentage of TS goal, labeled units are systems)

## Implementation Record (systems)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## SCWQP Implementation and Treatment of Highly Erodible Land

**TS Goal:** 39,933 acres

**Definition:** A comprehensive plan addressing natural resource management of farmland directed toward the control of erosion and sediment loss, and management of animal waste or agricultural chemicals.

**Applied to:** cropland and pasture

**Nitrogen Efficiency:** 11% reduction

**Phosphorus Efficiency:** 21% reduction

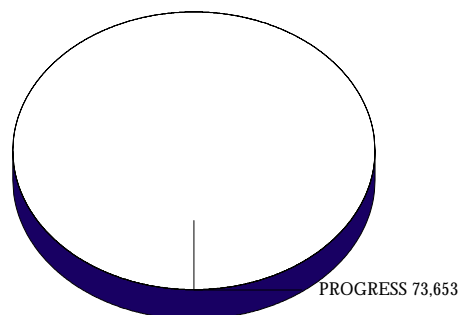
**BMP Rankings:**

**Ability to Reduce Nutrients:** Low

**Importance in Statewide Strategy:**

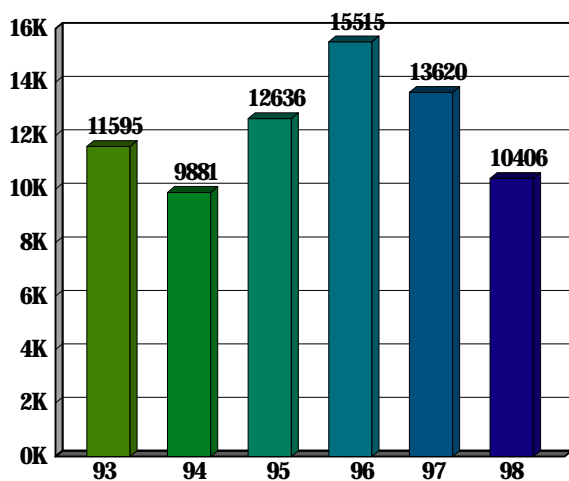
**Nitrogen - High**

**Phosphorus - High**

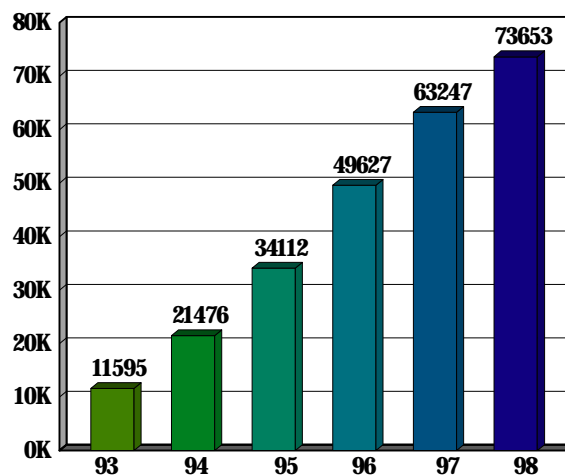


**1998 Progress for SCWQP Implementation and Treatment of Highly Erodible Land**  
(as a percentage of TS goal, labeled units are acres)

### Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.



# Upper Eastern Shore

## Stream Protection with Fencing

**TS Goal:** 16 acres

**Definition:** Fencing along streams to completely exclude livestock from the stream. Also improves streambank stability and reduces sedimentation.

**Applied to:** pasture

**Nitrogen Efficiency:** 75% reduction

**Phosphorus Efficiency:** 75% reduction

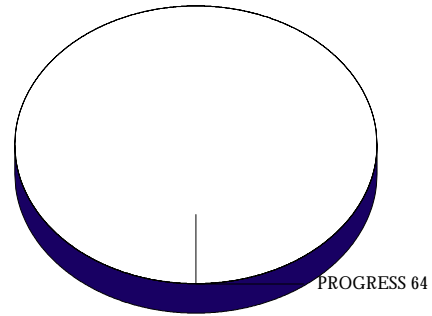
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

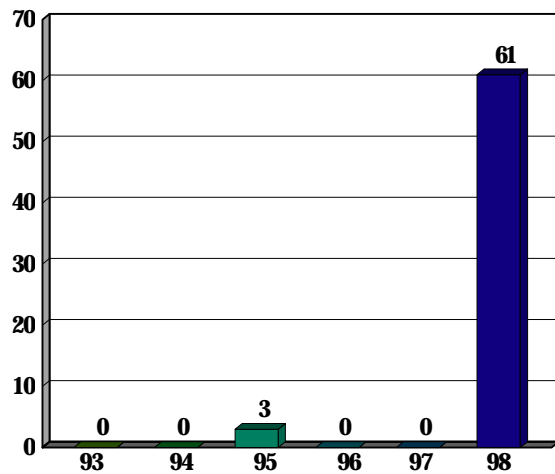
**Nitrogen** - Low

**Phosphorus** - Low

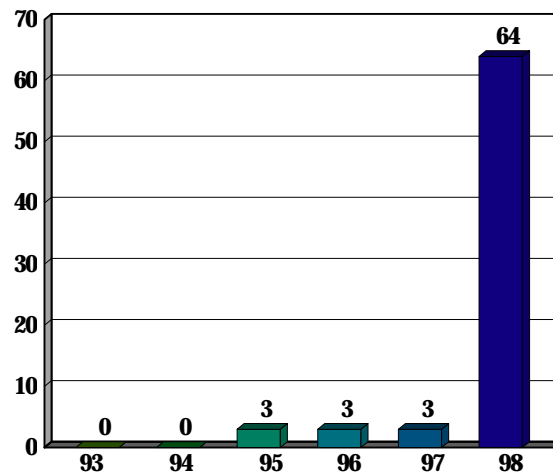


**1998 Progress for Stream Protection with Fencing**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Stream Protection without Fencing

**TS Goal:** 32 acres

**Definition:** Providing troughs or other watering devices in remote locations away from the stream to discourage animals from entering the stream, and the provision of some fencing adjacent to stream crossings to limit access points.

**Applied to:** pasture

**Nitrogen Efficiency:** 38% reduction

**Phosphorus Efficiency:** 38% reduction

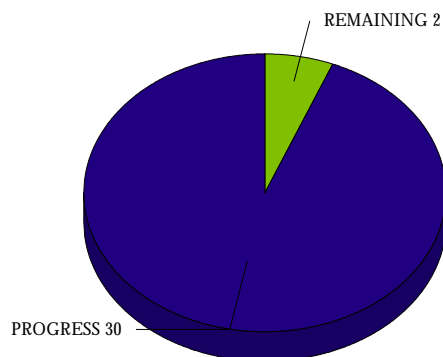
**BMP Rankings:**

**Ability to Reduce Nutrients:** Medium

**Importance in Statewide Strategy:**

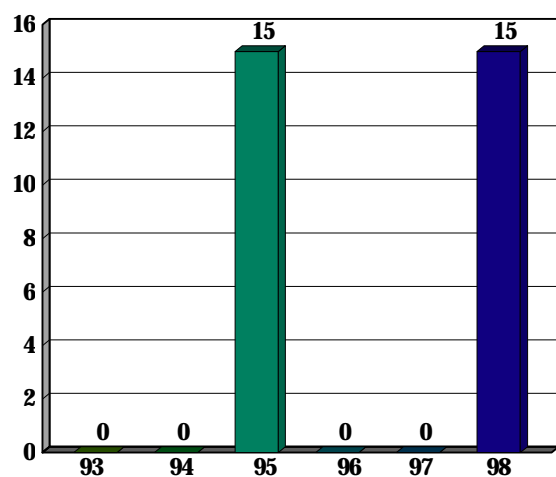
**Nitrogen** - Low

**Phosphorus** - Low

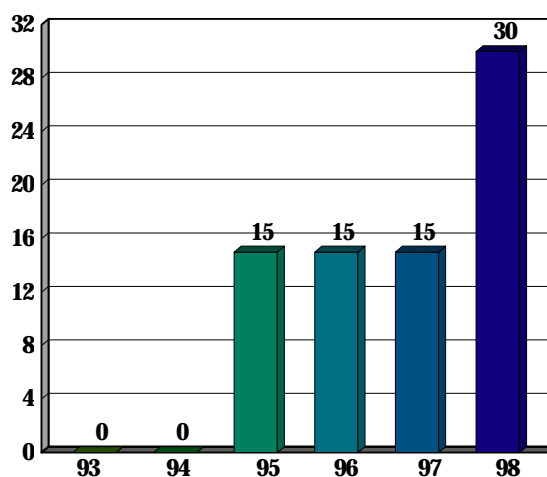


**1998 Progress for Stream Protection without Fencing**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Forest Conservation

**TS Goal:** 575 acres

**Definition:** Implementation of the Forest Conservation Act, which requires the retention of a portion of forested lands on any newly developed site.

**Applied to:** urban land

**Nitrogen Efficiency:** land conversion reduction

**Phosphorus Efficiency:** land conversion reduction

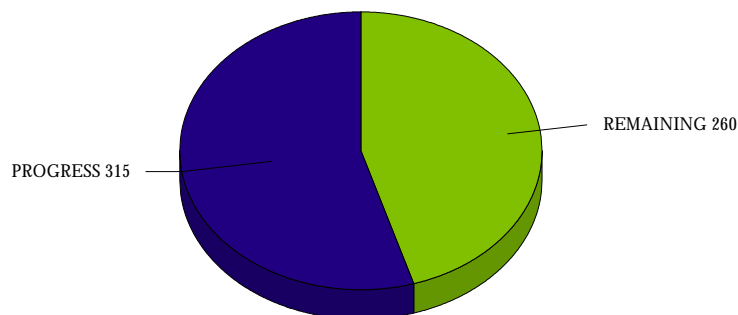
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

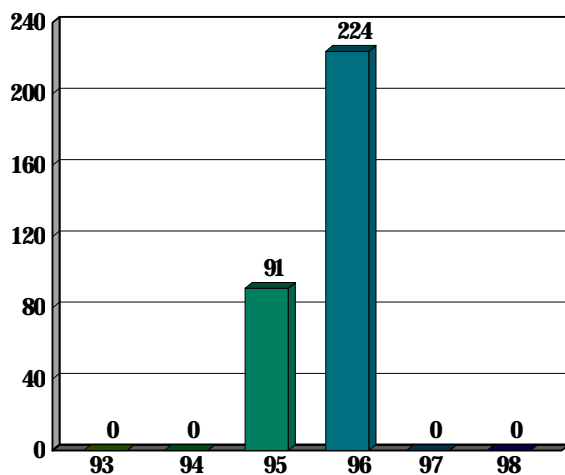
**Nitrogen** - Medium

**Phosphorus** - Medium

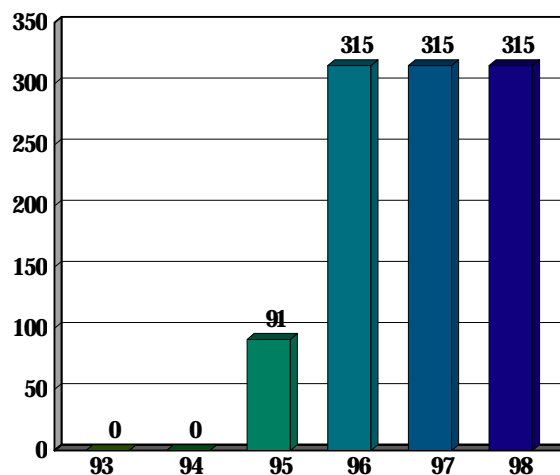


**1998 Progress for Forest Conservation**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Forest Harvesting Practices

**TS Goal:** 1,576 acres

**Definition:** Application of regulatory and voluntary best management practices applied to timber harvests, including erosion and sediment control and streamside management zones.

**Applied to:** forest land

**Nitrogen Efficiency:** 50% reduction

**Phosphorus Efficiency:** 50% reduction

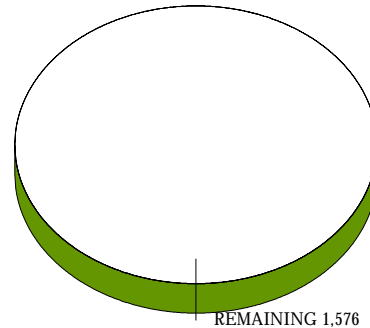
**BMP Rankings:**

**Ability to Reduce Nutrients:** Low

**Importance in Statewide Strategy:**

**Nitrogen** - Low

**Phosphorus** - Low



**1998 Progress for Forest Harvesting Practices**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)

**Annual**

**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Forested Buffers

**TS Goal:** 1,410 acres

**Definition:** A linear strip of forest along rivers and streams that filters nutrients and sediment and enhances stream habitat.

**Applied to:** cropland and pasture

**Nitrogen Efficiency:** 56% reduction

**Phosphorus Efficiency:** 70% reduction

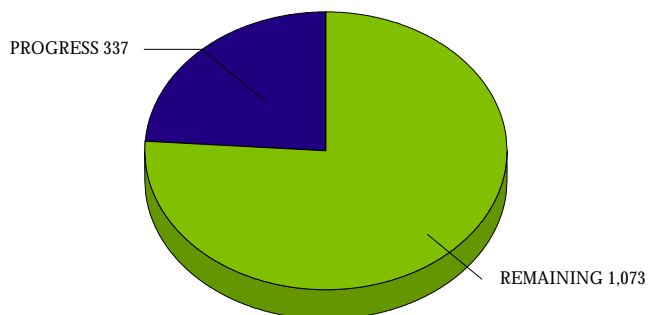
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

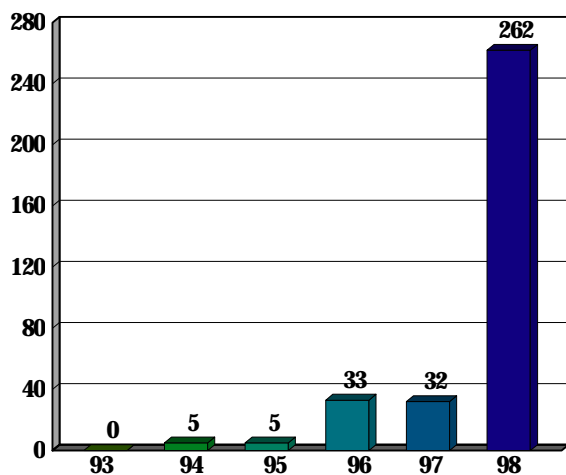
**Nitrogen** - Medium

**Phosphorus** - Medium

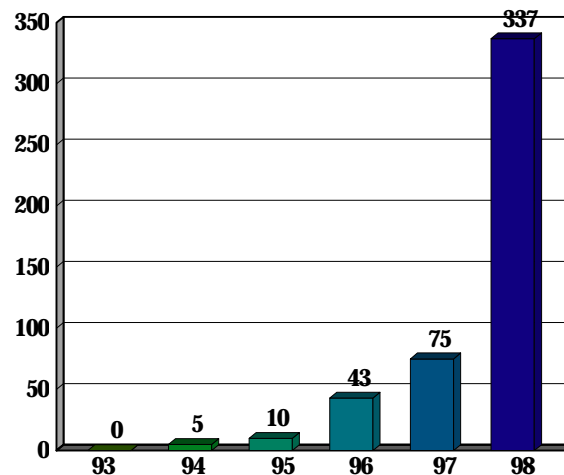


**1998 Progress for Forested Buffers**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Grassed Buffers

**TS Goal:** 1,521 acres

**Definition:** A linear strip of grass along rivers and streams that filters nutrients and sediment and enhances stream habitat.

**Applied to:** cropland and pasture

**Nitrogen Efficiency:** 41% reduction

**Phosphorus Efficiency:** 53% reduction

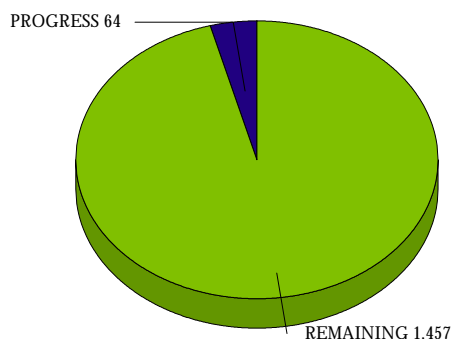
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

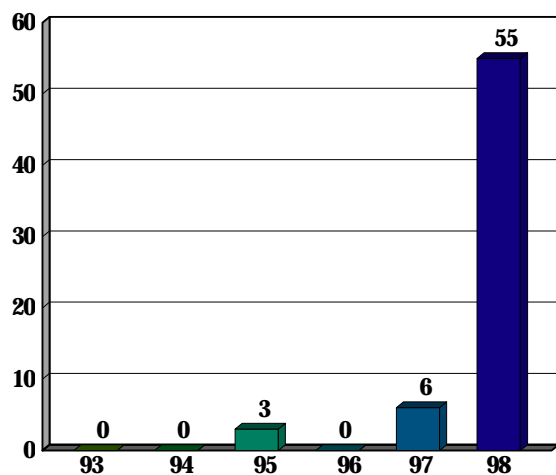
**Nitrogen** - Medium

**Phosphorus** - Medium

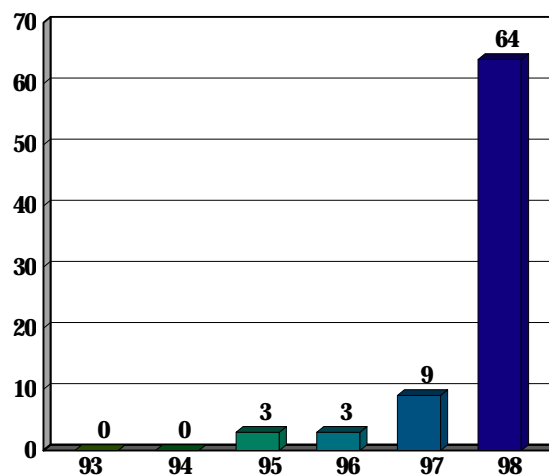


**1998 Progress for Grassed Buffers**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Marine Pumpouts (installation)

**TS Goal:** 28 marinas

**Definition:** A facility sited at marinas for pumping sewage from boat holding tanks to a dockside storage facility.

**Applied to:**

**Nitrogen Efficiency:** pound reduction

**Phosphorus Efficiency:** pound reduction

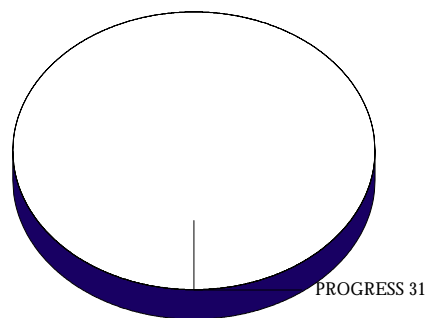
**BMP Rankings:**

**Ability to Reduce Nutrients:** High

**Importance in Statewide Strategy:**

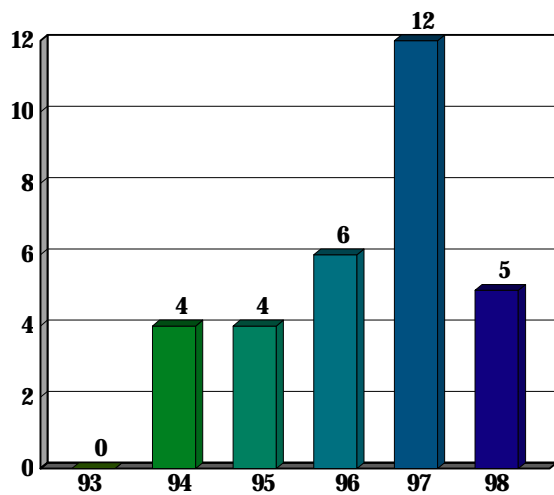
**Nitrogen** - Medium

**Phosphorus** - Medium

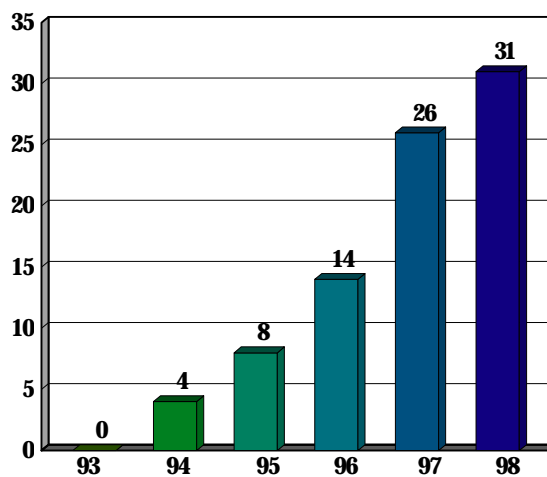


**1998 Progress for Marine Pumpouts (installation)**  
(as a percentage of TS goal, labeled units are marinas)

## Implementation Record (marinas)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Nonstructural Shore Erosion Control

**TS Goal:** 8,940 linear feet

**Definition:** A practice for stabilizing eroding shorelines by establishing marsh grasses; suitable for sites with lower wave energy. Also creates wetland habitat.

**Applied to:**

**Nitrogen Efficiency:** 66 lbs per l.f. reduction

**Phosphorus Efficiency:** 40 lbs per l.f. reduction

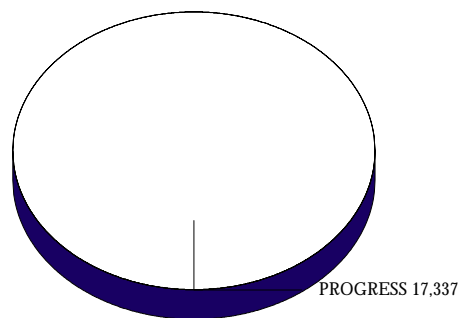
**BMP Rankings:**

**Ability to Reduce Nutrients:** Low

**Importance in Statewide Strategy:**

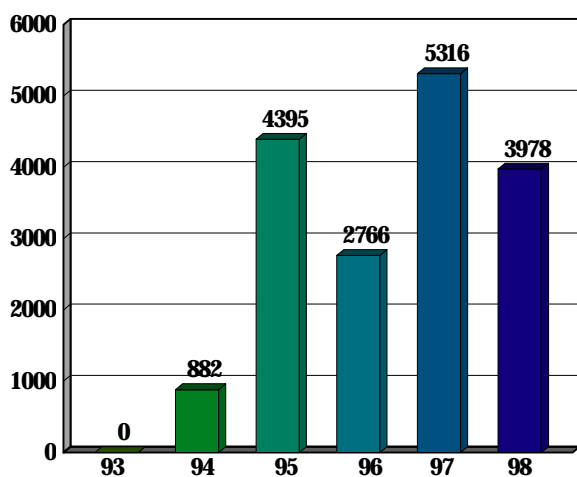
**Nitrogen** - Medium

**Phosphorus** - Medium

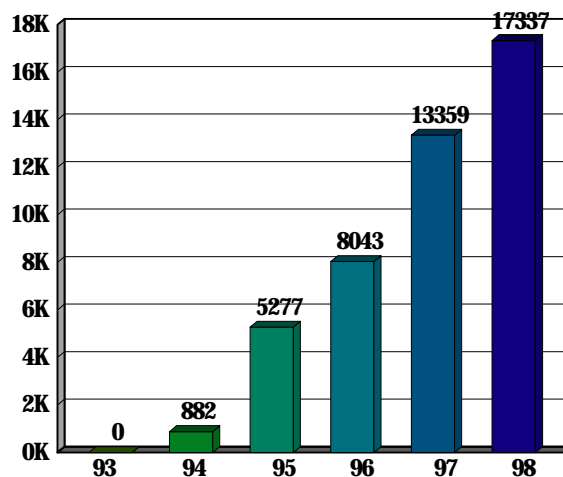


**1998 Progress for Nonstructural Shore Erosion Control**  
(as a percentage of TS goal, labeled units are linear feet)

## Implementation Record (linear feet)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.



# Upper Eastern Shore

## Structural Shore Erosion Control

**TS Goal:** 4,620 linear feet

**Definition:** A practice for stabilizing eroding shorelines using stone riprap or timber bulkheads. Suitable for sites with high wave energy.

**Applied to:**

**Nitrogen Efficiency:** 101 lbs per l.f. reduction

**Phosphorus Efficiency:** 67 lbs per l.f. reduction

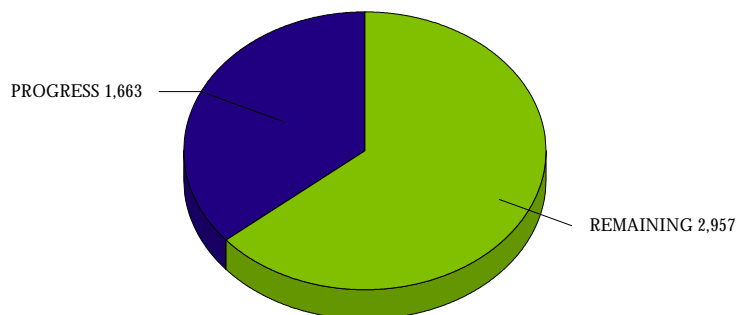
**BMP Rankings:**

**Ability to Reduce Nutrients:** Low

**Importance in Statewide Strategy:**

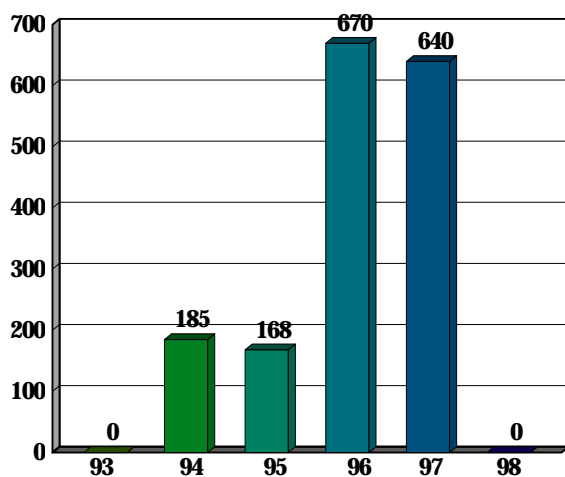
**Nitrogen** - Medium

**Phosphorus** - Medium

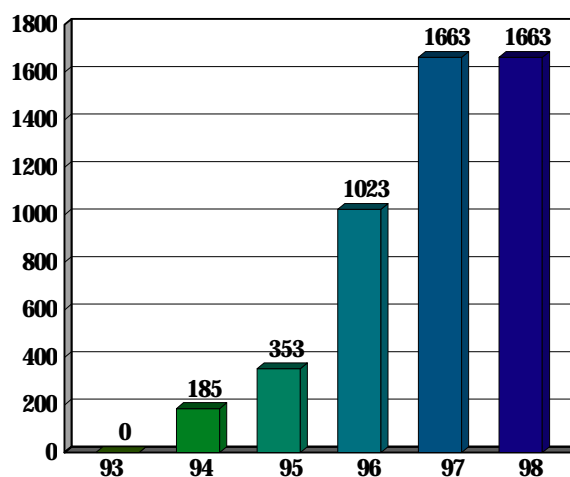


**1998 Progress for Structural Shore Erosion Control**  
(as a percentage of TS goal, labeled units are linear feet)

## Implementation Record (linear feet)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Tree Planting

**TS Goal:** 1,560 acres

**Definition:** Includes any tree plantings on any site except those along rivers and streams.

**Applied to:** urban land

**Nitrogen Efficiency:** 0 reduction

**Phosphorus Efficiency:** 0 reduction

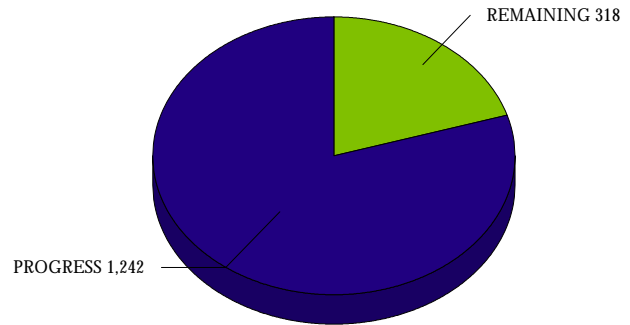
**BMP Rankings:**

**Ability to Reduce Nutrients:** Low

**Importance in Statewide Strategy:**

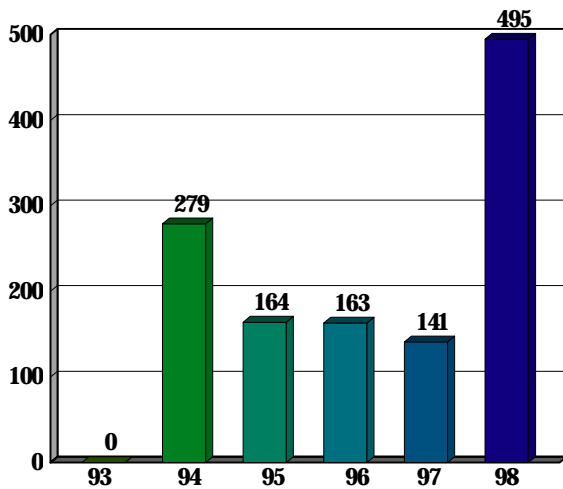
**Nitrogen** - Low

**Phosphorus** - Low

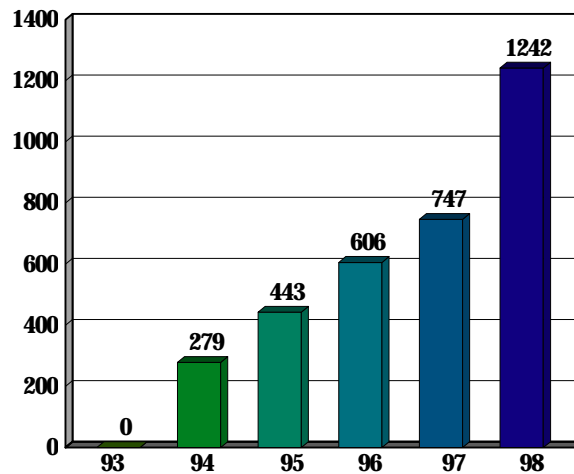


**1998 Progress for Tree Planting**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Enhanced Stormwater Management

**TS Goal:** 7,328 acres

**Definition:** The regulatory requirement for the control of Stormwater on all new development, including maintenance on new and existing facilities. Enhancements emphasize water quality controls in addition to water quantity controls.

**Applied to:** urban land

**Nitrogen Efficiency:** 33% reduction

**Phosphorus Efficiency:** 46% reduction

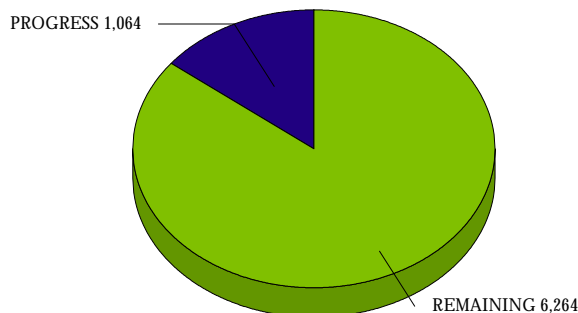
**BMP Rankings:**

**Ability to Reduce Nutrients:** Medium

**Importance in Statewide Strategy:**

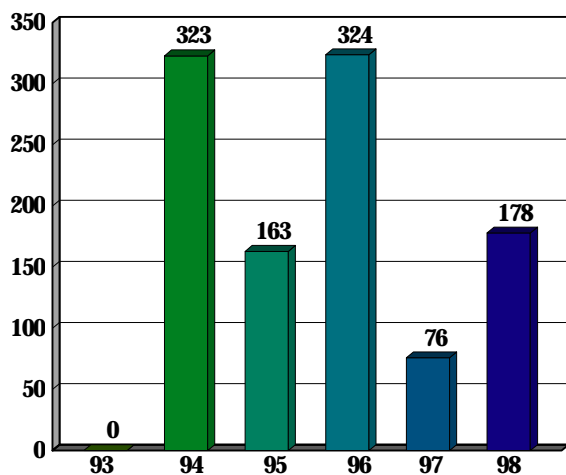
**Nitrogen** - High

**Phosphorus** - Medium

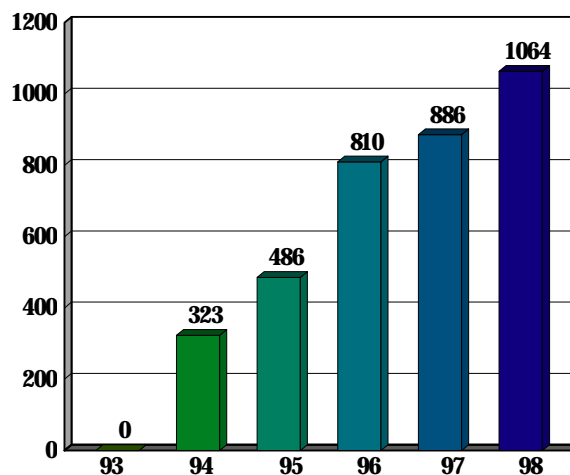


**1998 Progress for Enhanced Stormwater Management**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Erosion and Sediment Control

**TS Goal:** 1,047 acres

**Definition:** The regulatory requirement for erosion and sediment control on all new development over 5,000 square feet. Reduces the high nutrient and suspended sediment loads during the transitory construction phase.

**Applied to:** urban land

**Nitrogen Efficiency:** 33% reduction

**Phosphorus Efficiency:** 50% reduction

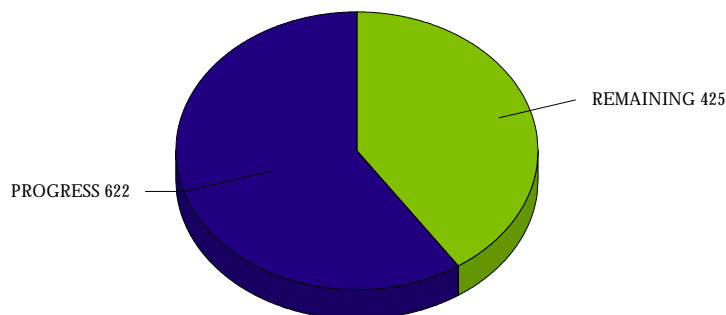
**BMP Rankings:**

**Ability to Reduce Nutrients:** Medium

**Importance in Statewide Strategy:**

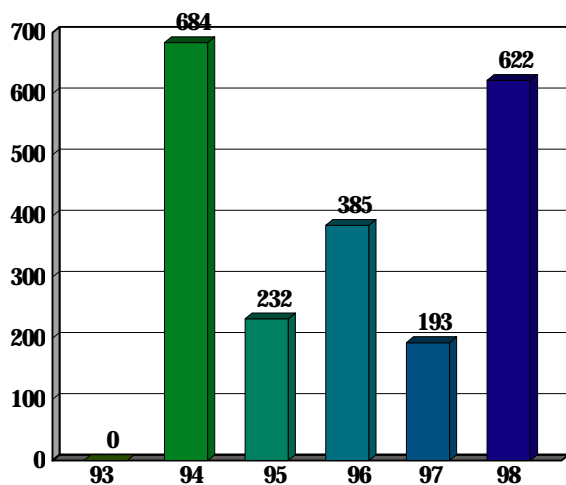
**Nitrogen** - Medium

**Phosphorus** - Low

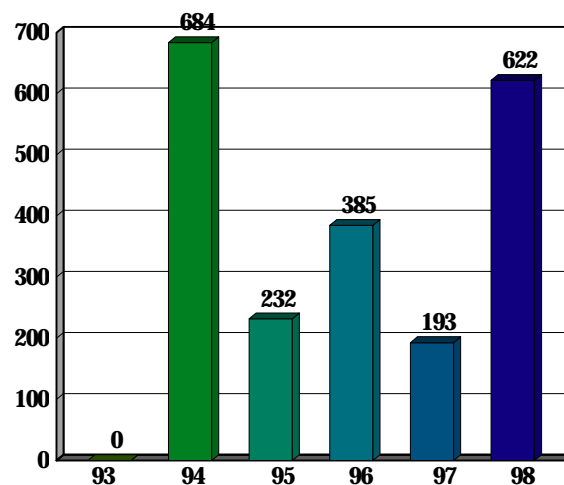


**1998 Progress for Erosion and Sediment Control**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Septic Connections

**TS Goal:** 1,781 systems

**Definition:** The connection of failing septic systems to sewer lines.

**Applied to:** urban land

**Nitrogen Efficiency:** 55% reduction

**Phosphorus Efficiency:** no reduction

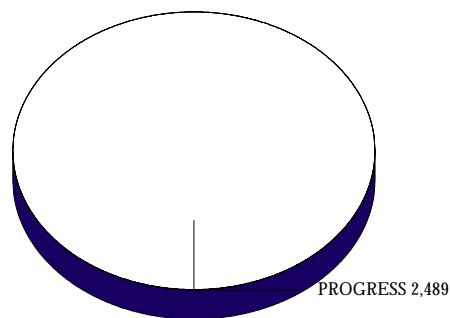
**BMP Rankings:**

**Ability to Reduce Nutrients:** Medium

**Importance in Statewide Strategy:**

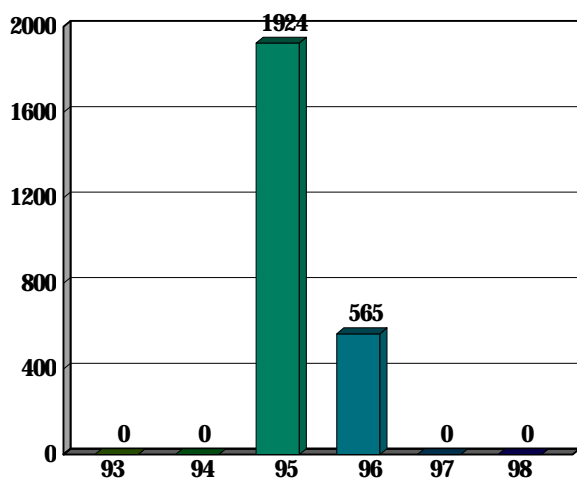
**Nitrogen** - Medium

**Phosphorus** - n/a

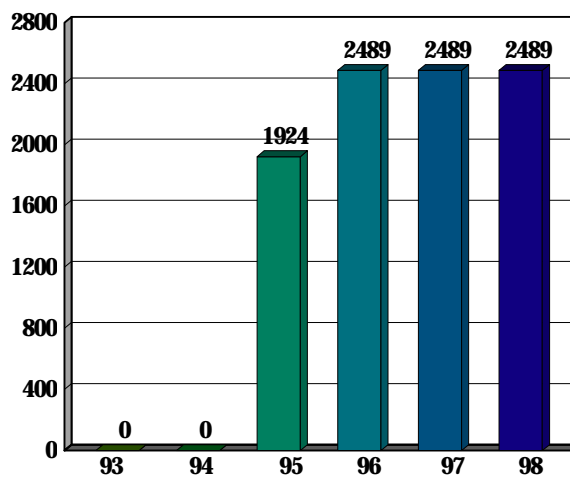


**1998 Progress for Septic Connections**  
(as a percentage of TS goal, labeled units are systems)

## Implementation Record (systems)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Septic Pumping

**TS Goal:** 117 systems

**Definition:** Pumping individual septic systems once every three years, the average routine maintenance of these systems.

**Applied to:** urban land

**Nitrogen Efficiency:** 5% reduction

**Phosphorus Efficiency:** no reduction

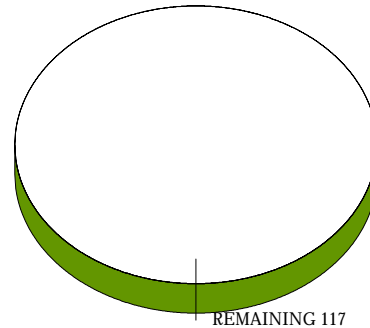
**BMP Rankings:**

**Ability to Reduce Nutrients:** Low

**Importance in Statewide Strategy:**

**Nitrogen** - Low

**Phosphorus** - n/a



**1998 Progress for Septic Pumping**  
(as a percentage of TS goal, labeled units are systems)

## Implementation Record (systems)

**Annual**

**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Stormwater Management Conversion

**TS Goal:** 76 acres

**Definition:** Conversion of dry ponds for Stormwater management to extended detention or retention facilities which are more effective at nutrient removal.

**Applied to:** urban land

**Nitrogen Efficiency:** 33% reduction

**Phosphorus Efficiency:** 46% reduction

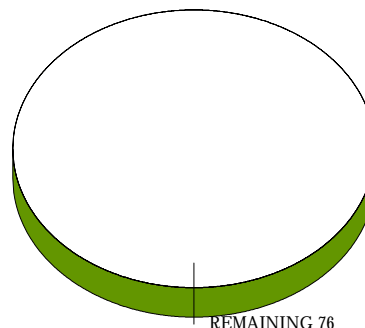
**BMP Rankings:**

**Ability to Reduce Nutrients:** Medium

**Importance in Statewide Strategy:**

**Nitrogen** - Low

**Phosphorus** - Low



**1998 Progress for Stormwater Management Conversion**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)

### Annual

### Cumulative

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.

# Upper Eastern Shore

## Stormwater Management Retrofits

**TS Goal:** 295 acres

**Definition:** Construction of Stormwater facilities on lands previously developed without such facilities.

**Applied to:** urban land

**Nitrogen Efficiency:** 33% reduction

**Phosphorus Efficiency:** 46% reduction

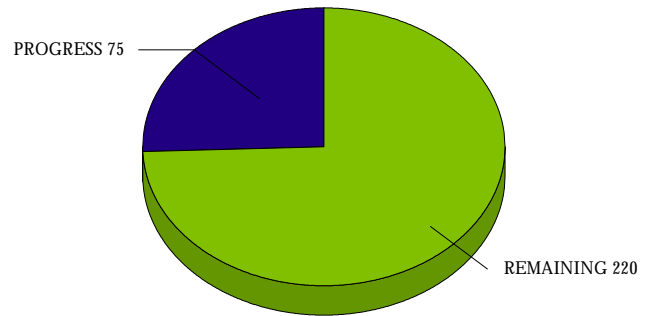
**BMP Rankings:**

**Ability to Reduce Nutrients:** Medium

**Importance in Statewide Strategy:**

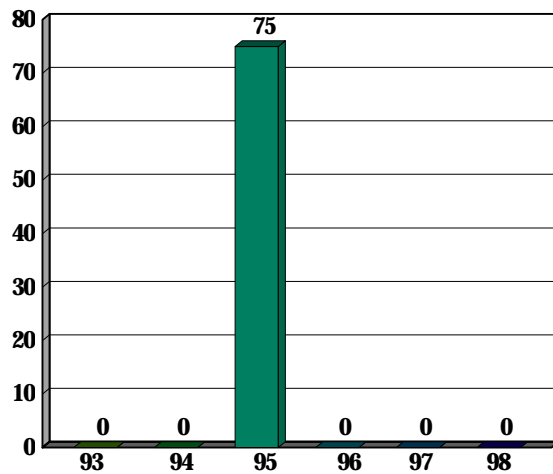
**Nitrogen** - Low

**Phosphorus** - Low

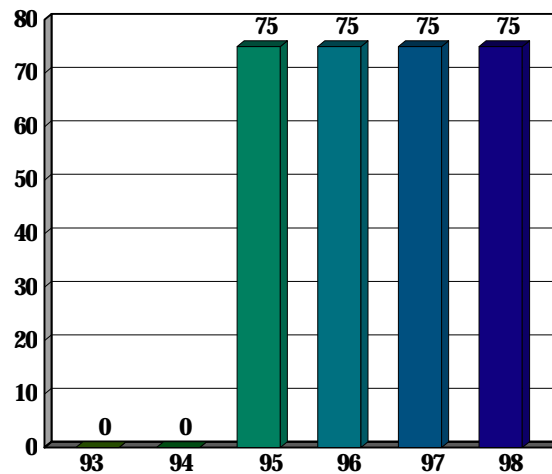


**1998 Progress for Stormwater Management Retrofits**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)



**Annual**



**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.



# Upper Eastern Shore

## Urban Nutrient Management

**TS Goal:** 794 acres

**Definition:** A public education program to reduce excess lawn fertilizer use, targeted at suburban residents and businesses.

**Applied to:** urban land

**Nitrogen Efficiency:** 17% reduction

**Phosphorus Efficiency:** 22% reduction

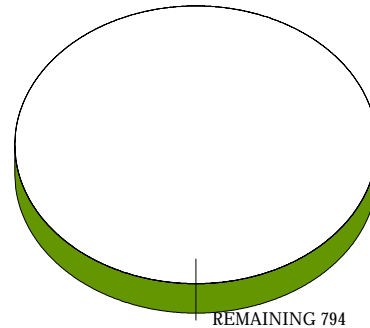
**BMP Rankings:**

**Ability to Reduce Nutrients:** Low

**Importance in Statewide Strategy:**

**Nitrogen** - Medium

**Phosphorus** - Low



**1998 Progress for Urban Nutrient Management**  
(as a percentage of TS goal, labeled units are acres)

## Implementation Record (acres)

**Annual**

**Cumulative**

NOTES: (1) Implementation data is organized by State fiscal year (i.e. 1994 = July 1, 1993 - June 30, 1994). (2) Most implementation data is based on State program activities, funding and/or requirements. (3) BMP definitions are from "Maryland's Tributary Strategies for Nutrient Reduction" report, 1995. (4) BMP implementation data is from the Maryland Interagency Tracking Subcommittee. (5) Efficiencies are average statewide efficiencies. (6) Ongoing improvements to the Watershed Model shift the expected reductions of BMPs with efficiencies listed as "land use conversions" slightly.